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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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EXAMINER

HASSANZADEH, PARVIZ

ART UNIT

PAPER NUMBER

1763

DATE MAILED: 05/30/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/601,958

Applicant(s)

BHARDWAJ ET AL.

Examiner

Parviz Hassanzadeh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 and 26-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-24 and 26-49 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-24, 26-34, 47 and 48, drawn to an apparatus.

Group II, claim(s) 35-46 and 49, drawn to a method.

The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: group I requires special technical features of a substrate support and an attenuation means while are not required by group II.

This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

Species 1 - Embodiment 1, pages 18-20, Figs. 1, 2;

Species 2 - Embodiment 2, pages 20-21, Fig. 3,4;

Species 3 - Embodiment 3, pages 21-22, Fig. 5;

Species 4 - Embodiment 4, pages 22, Fig. 6;

Species 5 - Embodiment 5, page 22 , Fig. 7;

Species 6 - Embodiment 6, pages 22-23, Fig. 8;

Species 7 - Embodiment 7, pages 24-25, Fig. 9;

Species 8 - Embodiment 8, pages 25-26, Fig. 10;

Species 9 - Embodiment 9, pages 26-27, Fig. 11;

Species 10 - Embodiment 10, page 27, Fig. 1 2A, 12B;

Species 11 - Embodiment 11, pages 27-28, Fig. 13;

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

The claims are deemed to correspond to the species listed above in the following manner:

Species 1: claims 1, 2, 4, 6-9, 12-15, 21, 26- 28

Species 2: claims 1, 2, 4, 6-15, 21, 26- 28

Species 3: claims 1, 2, 4, 6, 16, 26-28

Species 4: claims 1, 17 , 18, 26

Species 5: claims 1, 17, 18, 26

Species 6: claims 1, 3, 5, 17-20, 26

Species 7: claims 1, 3, 7, 19, 26- 28, 47, 48

Species 8: claims 1, 7, 26-28

Species 9: claims 1, 7, 22-24, 26-30, 32-34

Species 10: claims 1, 7, 22-24, 26, 27-31, 34

Species 11: claims 1, 2, 3, 5, 7, 19, 20, 22-24, 26, 27-30, 32-34

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The following claim(s) are generic:

claims 1 and 26, including an attenuation means, are generic to species 1-11 ;

claims 29, 34, including a guiding means, are generic to species 9, 10, 11.

The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons:

Species 1: including a series of parallel tubes 11 mounted in a plane parallel to the surface of the plate 6.

Species 2: including permanent magnet carrying tubes 14 extending vertically and being placed in a cage arrangement to form an internal magnetic bucket, with each tube substantially parallel to the dielectric window 9 and sidewall 8.

Species 3: including strong magnets 17 disposed adjacent to the sidewall 8, just below the level of the dielectric window 9.

Species 4: including a horizontally disposed grid 18 located across the chamber 2, separating the plasma production region, adjacent to the dielectric window, from the wafer 7.

Species 5: including a grid 20 having apertures 21 is of cylindrical form and a gas may be fed in at either or both of inlet 3 or a second inlet 3A.

Species 6: including a grid 18 located part way down a dielectric window 22; and two antennas 23, 24 are wound around the dielectric window 22; and an additional gas may be fed at a location below the grid 18.

Species 7: including a subsidiary chamber 28 having dielectric window 29 which is wound around by an antenna 30 constituting a pulse plasma source; and further including a magnet 34 positioned around an aperture 27.

Species 8: including a subsidiary chamber 28 having dielectric window 35 which is wound around by an antenna 30 constituting a pulse plasma source; and further including a magnet 34 positioned around an aperture 27, wherein the lower portion of the subsidiary chamber comprising wall 35 converges at their upper end opposite the end at aperture 27 .

Species 9: including a guiding means in the form of a disc 36 positioned above the wafer 7 and below tubes 11 of species 1 and may have one or more apertures therein.

Species 10: including a guiding means having a portion 37A parallel to the wafer 7 and an inclined portion 37B.

Species 11: including a guiding means in the form of a disc 38 disposed in an apparatus of species 6 (Fig. 8) wherein the grid 18 is replaced by an attenuation structure 40 or in an apparatus of species 7 (Fig. 9).

A telephone call was made to Adam C. Volentine on 5/17/02 to request an oral election to the above restriction requirement, but did not result in an election being made.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Parviz Hassanzadeh whose telephone number is (703)308-2050. The examiner can normally be reached on Tuesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory L. Mills can be reached on (703)308-1633. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9310 for regular communications and (703)872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

P. Hassanzadeh
Parviz Hassanzadeh
Examiner
Art Unit 1763

May 18, 2002